

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

ILIFE TECHNOLOGIES, INC.,

Plaintiff,

v.

NINTENDO OF AMERICA, INC.,

Defendant.

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Civil Action No. 3:13-cv-4987-M

JURY TRIAL DEMANDED

**PLAINTIFF'S RESPONSE TO DEFENDANT'S OPENING
CLAIM CONSTRUCTION BRIEF**

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TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	ARGUMENTS.....	2
A.	“within environmental tolerance”	2
B.	“dynamic and static accelerative phenomena of the body” / “dynamic acceleration” / “static acceleration”	10
C.	“communications device”	13
D.	“acceleration measuring device”	14
E.	“subtracting a value of gravitational acceleration”	16
F.	“evaluate [or evaluates or evaluating] movement of a body relative [to] an environment” / “evaluate [or evaluates] body activity relative to an environment”	17
G.	“substantially continually measuring”	18
H.	“an unsuccessful attempt to change position” / “a motion of a body moving with a gait associated with a disability” / “a swaying motion” / “a near fall”	19
III.	CONCLUSION.....	20

TABLE OF AUTHORITIES

	Page(s)
CASES	
<i>ACTV, Inc. v. Walt Disney, Co.</i> , 346 F.3d 1082 (Fed. Cir. 2003).....	15, 16
<i>Anchor Wall Sys., Inc. v. Rockwood Retaining Walls, Inc.</i> , 340 F.3d 1298 (Fed. Cir. 2003).....	4
<i>Comaper Corp. v. Antec, Inc.</i> , 596 F.3d 1343 (Fed. Cir. 2010).....	17
<i>Edwards Lifesciences LLC v. Cook Inc.</i> , 582 F.3d 1322 (Fed. Cir. 2009).....	12
<i>Enzo Biochem, Inc. v. Applera Corp.</i> , 599 F.3d 1325 (Fed. Cir. 2010).....	18, 20
<i>Grober v. Mako Products, Inc.</i> , 686 F.3d 1335 (Fed. Cir. 2012).....	3
<i>i4i Ltd. P'ship v. Microsoft Corp.</i> , 598 F.3d 831 (Fed. Cir. 2010).....	3
<i>Innovative Sonic Ltd. v. Research in Motion Ltd.</i> , No. 3:11-CV-0706-K, 2012 WL 4928897 (N.D. Tex. Oct. 17, 2012)	13
<i>Interactive Gift Express, Inc. v. Compuserve Inc.</i> , 256 F.3d 1323 (Fed. Cir. 2001).....	2, 7
<i>MBO Labs., Inc. v. Becton, Dickinson & Co.</i> , 474 F.3d 1323 (Fed. Cir. 2007).....	4
<i>Nautilus, Inc. v. Biosig Instruments, Inc.</i> , 134 S. Ct. 2120 (2014).....	18, 20
<i>Phillips v. AWH Corp.</i> , 415 F.3d 1303 (Fed. Cir. 2005).....	passim
<i>Raytheon Co. v. Indigo Sys. Corp.</i> , 682 F. Supp. 2d 717 (E.D. Tex. 2010).....	18
<i>SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.</i> , 242 F.3d 1337 (Fed. Cir. 2001).....	4

<i>Stumbo v. Eastman Outdoors, Inc.</i> , 508 F.3d 1358 (Fed. Cir. 2007).....	5, 15
<i>Thorner v. Sony Computer Entm’t Am. LLC</i> , 669 F.3d 1362 (Fed. Cir. 2012).....	3
<i>U.S. Surgical Corp. v. Ethicon, Inc.</i> , 103 F.3d 1553 (Fed. Cir. 1997).....	17
<i>Verizon Servs. Corp. v. Vonage Holdings Corp.</i> , 503 F.3d 1295 (Fed. Cir. 2007).....	4, 6
<i>Vitronics Corp. v. Conception, Inc.</i> , 90 F.3d 1576 (Fed. Cir. 1996).....	6

I. INTRODUCTION

Defendant repeatedly asks the Court to commit a “cardinal sin” of claim construction. Even though the asserted claims are broadly written to cover systems and methods for evaluating body movement and activity relative to an environment of interest, Defendant seeks to limit the inventions to the preferred embodiment and related examples.

Defendant’s position on “within environmental tolerance” is a perfect example. The claims broadly recite that “sensed dynamic and static accelerative phenomena [are processed] as a function of at least one accelerative event characteristic to thereby determine whether said evaluated body movement is within environmental tolerance.” But Defendant attempts to limit “within environmental tolerance” to detecting damaging or destructive events based on a discussion of problems with conventional fall detectors:

[V]arious conventional detectors . . . [are not] capable of evaluating body movement to determine whether the same is normal or abnormal; and if abnormal, whether such movement is **so abnormal to be beyond tolerance, for instance, to be damaging, destructive, crippling, harmful, injurious, or otherwise alarming or, possibly, distressing to the body.**¹

Defendant’s proposed construction would limit the claim scope to less than the plain meaning of the claim terms and exclude several disclosed embodiments. For example, the patents disclose that the system may generate tolerance indicia (*i.e.*, information indicating whether the body is within environmental tolerance) based on “meet[ing] a defined level of activity (e.g., a prescribed regimen of activity required to rehabilitate an injury or to maintain health)” or “captur[ing] ‘counts’ and other suitable statistics for subsequent evaluation of trends in activity levels.”² Defendant’s proposed construction would exclude those embodiments. As discussed below, the Court should adopt Plaintiff’s proposed constructions, which are based on the claim

¹ ‘481 Patent at 1:51-59 (App. 14).

² ‘461 Patent at 4:5-31 (App. 106).

language itself, the inventors' express definitions, and the specification as a whole, and do not import limitations from the example embodiments into the claims.

II. ARGUMENTS

A. "within environmental tolerance"

Plaintiff's proposed construction	Defendant's proposed construction
acceptable based on criteria including a specified value given the environment and application for which body movement is being evaluated	Not so abnormal as to be damaging, destructive, crippling, harmful, injurious or otherwise alarming or, possibly, distressing to the body relative to the physical system in which the body is located

1. "Within environmental tolerance" is not limited to "damaging" events.

Defendant argues, incorrectly, that the patents "expressly state what is meant to be 'beyond tolerance,'" referring to the following passage:

[T]he various conventional detectors [are not] capable of evaluating body movement to determine whether the same is normal or abnormal; and if abnormal, whether such movement is **so abnormal to be beyond tolerance, for instance, to be damaging, destructive, crippling, harmful, injurious, or otherwise alarming or, possibly, distressing to the body.**³

This passage *does not* limit the disputed claim language (or even what it means to be beyond tolerance) but instead provides "for instance" examples of how body movement *may be* "beyond tolerance." The Court should not import this passage into the construction of "within environmental tolerance" for several reasons.

First, claim construction must begin with the language of the claims themselves.⁴ "It is the claims that define the metes and bounds of the patentee's invention. The patentee is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning unless

³ '481 Patent at 1:51-59 (App. 14).

⁴ *Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001) ("In construing claims, the analytical focus must begin and remain centered on the language of the claims themselves, for it is that language that the patentee chose to use to particularly point out and distinctly claim the subject matter which the patentee regards as his invention.").

the patentee explicitly redefines the term or disavows its full scope.”⁵ “Generally, a claim is not limited to the embodiments described in the specification unless the patentee has demonstrated a ‘clear intention’ to limit the claim’s scope with ‘words or expressions of manifest exclusion or restriction.’”⁶ Here, the inventors intentionally utilized broad language, claiming systems and methods that evaluate body movement and body activity relative to an environment of interest.

The phrase “within environmental tolerance” does not suggest a limitation based on detection of damaging or destructive events. While Defendant argues for such a limitation based on the specification and prosecution history,⁷ the cited passages are illustrative descriptions of the inventions, not “clear and unmistakable” disclaimers of claim scope or meaning.⁸ The alleged estoppel passages discussing the preferred embodiment use qualifying phrases including “e.g.,” “for example,” and “such as,” indicating that the disclosed examples are not limiting.⁹ There are no statements disclaiming the broad scope of the claims.¹⁰ Accordingly, Plaintiff is entitled to the full plain and ordinary meaning of the term “within environmental tolerance.”¹¹

⁵ *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1367 (Fed. Cir. 2012) (citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005)).

⁶ *i4i Ltd. P’ship v. Microsoft Corp.*, 598 F.3d 831, 843 (Fed. Cir. 2010) (holding that the specification’s permissive language “could be edited,” “can be created,” and “ability to work,” does not clearly disclaim systems lacking these benefits).

⁷ Doc. #49 at 15.

⁸ *Grober v. Mako Products, Inc.*, 686 F.3d 1335, 1342 (Fed. Cir. 2012) (“This court has often stated that prosecution history limits claim meaning when an applicant “clearly and unmistakably” disclaims claim scope or meaning.”).

⁹ Doc. #49 at 15.

¹⁰ Defendant argues that iLife stated in a prosecution brief that the patents concern “evaluating movement of a body to detect ‘abnormal’ changes in body activity (e.g., a potentially injurious fall).” Doc. #49 at 3 (quoting 2001 Appellate Br. at 3). But this statement was clearly referring to the preferred embodiment. The very next sentence continues, “[t]he body movement evaluation system 11 includes a housing 17 containing a sensor 25 measuring acceleration of a body to which system 11 is affixed along each of at least two axes (x axis 27 and y axis 29 in the exemplary embodiment).” App. Br. at 3 (Def. App. 11). None of the statements in the appellate brief limit or disclaim the broad scope of the claims.

¹¹ *Thorner*, 669 F.3d at 1367; *Phillips*, 415 F.3d at 1313.

Second, it is a “cardinal sin” of claim construction to limit the claims based on example embodiments disclosed in the specification, and the Federal Circuit has “repeatedly warned against confining the claims to those embodiments.”¹² The patents state, repeatedly, that the disclosed embodiments are only examples.¹³ While any proper construction must cover these disclosed examples, the Court must avoid limiting the claims based on these example embodiments,¹⁴ especially in a case like this where the specification makes clear that the inventors intended *not* to limit the invention to detection of “damaging” events.¹⁵

Third, it is improper to interpret a claim term in a way that excludes disclosed embodiments when the term in question has multiple ordinary meanings consistent with the intrinsic record.¹⁶ Here, Defendant’s proposed construction excludes example embodiments where “environmental tolerance” is based on “meet[ing] a defined level of activity (e.g., a prescribed regimen of activity required to rehabilitate an injury or to maintain health)” or

¹² *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1340 (Fed. Cir. 2001) (“[O]ne of the cardinal sins of patent law [is] reading a limitation from the written description into the claims.”); *Anchor Wall Sys., Inc. v. Rockwood Retaining Walls, Inc.*, 340 F.3d 1298, 1306-07 (Fed. Cir. 2003) (“[L]imitations may not be read into the claims from the written description.”); *Phillips*, 415 F.3d at 1323 (“[W]e have repeatedly warned against confining the claims to those embodiments.”).

¹³ ‘481 Patent at 7:37-45 (App. 17) (“It should be noted that this illustration introduces an exemplary operational method for programming processor 47 for its use as a fall detector, and that suitable alternate embodiments of system 11 for evaluating movement of a body relative to different environments may likewise be implemented in accordance with the principles hereof, such as for relative position, other assistance monitoring, transparent monitoring, tactical maneuver monitoring, etc.”); ‘481 Patent at 8:50-55 (App. 17) (“It should be noted that the foregoing embodiment was introduced for illustrative purposes only and that the present invention broadly introduces systems, as well as methods of operating such systems, that evaluate movement of a body relative to an environment, which in the above-given example is an assistance monitoring environment.”); ‘481 Patent at 8:64-67 (App. 17) (“For instance, “tolerance” would likely be very different for a monitored body of an elderly person with a heart condition, a toddler, a box in a freight car, a container of combustible gas, etc.”).

¹⁴ *Phillips*, 415 F.3d at 1320 (noting the rule “against importing limitations into the claims.”).

¹⁵ *MBO Labs., Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1334 (Fed. Cir. 2007) (“Limiting claims from the specification is generally not permitted absent a clear disclosure that the patentee intended the claims to be limited as shown.”).

¹⁶ *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1305 (Fed. Cir. 2007) (“We normally do not interpret claim terms in a way that excludes disclosed examples in the specification.”).

“captur[ing] ‘counts’ and other suitable statistics for subsequent evaluation of trends in activity levels (e.g., to identify possible changes in body’s level of activity; in the case of equipment, possibly to increase efficiency).”¹⁷ Defendant does not explain how its proposed construction covers these disclosed embodiments or why excluding them is appropriate.

Fourth, under the doctrine of claim differentiation, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.¹⁸ The patents recite independent claims that determine if “the evaluated body movement is within environmental tolerance,”¹⁹ with dependent claims that determine if “evaluated body movement signifies an occurrence of a potentially dangerous event”²⁰ or “a fall.”²¹ Detection of a “potentially dangerous event” or “a fall” is thus presumably *not* required for determining if the body activity is “within environmental tolerance.”²²

2. Plaintiff’s “acceptable” construction avoids several problems presented by Defendant’s “not so abnormal” construction.

The patents require a determination of whether evaluated body movement or activity is “acceptable,” or within tolerance, given the application and environment of interest. Plaintiff’s proposed construction of “acceptable based on criteria including a specified value” has several advantages over Defendant’s proposed “not so abnormal” construction.

First, the patents explain that the claims require a “yes” or “no” determination on whether evaluated body movement is within tolerance, or acceptable, given the application and

¹⁷ ‘461 Patent at 4:5-31 (App. 106).

¹⁸ *Phillips*, 415 F.3d at 1315.

¹⁹ *See e.g.*, ‘481 Patent at Claim 1 (App. 19).

²⁰ ‘796 Patent at Claim 4 (App. 63).

²¹ ‘939 Patent at Claim 2 (App. 44).

²² *Phillips*, 415 F.3d at 1315; *Stumbo v. Eastman Outdoors, Inc.*, 508 F.3d 1358, 1362 (Fed. Cir. 2007).

environment of interest.²³ Plaintiff's proposed construction presents a binary decision on whether evaluated body movement is acceptable, given the parameters of the application and environment of interest. Defendant's proposed construction, by contrast, is a two-step inquiry of (1) whether movement is normal or abnormal, and (2) if abnormal, whether it is tolerable to the body (*i.e.*, not damaging or destructive). This two-step approach comes from a preferred embodiment described in the patents.²⁴ It is not required by the claims.

Second, Defendant's proposed construction uses the awkward and confusing double-negative "not so abnormal." Plaintiff's proposed construction avoids the double-negative by construing "within environmental tolerance" in terms of "acceptable" given the application and environment of interest. Plaintiff's proposal is less likely to confound the jurors and lawyers.

Third, Defendant's proposed construction excludes example embodiments, which is improper.²⁵ On the other hand, Plaintiff's proposed construction of "acceptable" provides the proper scope for the disclosed embodiments, including the fall detection and damaging embodiments, as well as embodiments where acceptability is based on "meet[ing] a defined level of activity" or "captur[ing] 'counts' . . . for subsequent evaluation of trends in activity levels."²⁶ For example, the later embodiments describe signaling if there is an indication that "the associated body may have suffered a *unacceptable* event"²⁷ In other words, events that are

²³ See *e.g.*, '461 Patent at 1:55-62 (App. 105); 4:10-15 (App. 106); '481 Patent at 1:30-37 (App. 14).

²⁴ '481 Patent at 11:24-28 (App. 19) ("Exemplary processor 47 is programmed to distinguish between normal and abnormal accelerative events (*e.g.*, walking, sitting, lying down, etc. versus tripping, falling down, etc.), and, when an abnormal event is identified, indicates whether the abnormal event is tolerable, or within tolerance.").

²⁵ *Verizon Servs.*, 503 F.3d at 1305 ("We normally do not interpret claim terms in a way that excludes disclosed examples in the specification."); *Vitronics Corp. v. Conception, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996) ("Such an interpretation is rarely, if ever, correct and would require highly persuasive evidentiary support, which is wholly absent in this case.").

²⁶ '461 Patent at 4:5-31 (App. 106).

²⁷ '461 Patent at 4:9-12 (App. 106).

within environmental tolerance are those that are *acceptable*, not necessarily just those that are “not so abnormal.”

Fourth, Defendant’s proposed interpretation and arguments against the use of the word “acceptable” conflate the claimed determination of “within environmental *tolerance*” with a determination of whether movement is “*tolerable*” to the body.²⁸ The two concepts are related but have different meanings. As used in the claims, “tolerance” refers to deviation from a specified value, not the ability to endure or survive.²⁹ The patents repeatedly disclose systems and methods that determine if body movement is tolerable *or* within tolerance.³⁰ Because the claims use the latter term *tolerance*, it controls.³¹

Fifth, Defendant’s arguments presuppose, incorrectly, that the terms “normal” and “acceptable” have the exact same meaning.³² While an event may be both “normal” and

²⁸ Doc. #49 at 15-16 (arguing that “[t]he concepts of ‘acceptable’ and ‘unacceptable’ are distinct in the Asserted Patents from ‘tolerable’ and ‘intolerable’ events” and that “‘normal’ and ‘abnormal’ events are different from ‘tolerable’ events and ‘abnormal’ events need not be intolerable.”).

²⁹ See *Infra* § A.3. (discussing the meaning of tolerance).

³⁰ See *e.g.*, ‘481 Patent at 8:12-17 (App. 17) (“Processor 47 uses ac voltage components of each output from sensor 25 to check against a G force threshold value set at DIP switch 51 to see if it exceeds the threshold (Step 420; thus qualifying as a potential fall impact, in the current example, possibly an intensity in excess of about 2 to 4 G depending upon desired sensitivity).”); ‘481 Patent at 8:22-30 (App. 17) (“Processor 47 determines a fall by testing a post-impact stream of samples against a tolerance (Step 425; for instance, a selected value of the ac voltage components, for example a value less than about 2 G). . . . When the position has stabilized to less than the tolerance, W samples are averaged to get the new stable static acceleration average value corresponding to the new stable position.”); ‘481 Patent at 8:31-35 (App. 17) (“Processor 47, in response to the value corresponding to the new stable position is shifted indicating a change of body position of 45° or more from the last stable position, classifies the event as a debilitating fall and alert stage 41 is 35 activated (Step 430).”); ‘481 Patent at 8:39-43 (App. 17) (“Processor 47 . . . determines whether the body associated with sensor 25 is lying down if the added value exceeds a value corresponding to 90° plus or minus 25% (Step 435). . . . While the flag is set, any impact that exceeds the G force threshold is treated as a debilitating fall (Step 440).”).

³¹ *Interactive Gift*, 256 F.3d at 1331 (“In construing claims, the analytical focus must begin and remain centered on the language of the claims themselves, for it is that language that the patentee chose to use to particularly point out and distinctly claim the subject matter which the patentee regards as his invention.”).

³² Doc. #49 at 16 (quoting ‘481 Patent at 1:32-33 (stating that conventional detectors were unable to “discern ‘normal’ or acceptable, changes in level of body activity.”).

“acceptable,” these terms are not congruent in scope. Abnormal body movement may be acceptable if it is not, “for instance, . . . damaging, destructive, etc.”³³ Likewise, “normal . . . events (e.g., walking, . . . etc.)”³⁴ may be unacceptable if, for example, they fail to meet “a select level of activity . . . over a given time period”³⁵ Thus, “acceptable . . . given the application and environment of interest” accurately captures the claim limitation “within environmental tolerance.”³⁶

Finally, Defendant argues that the claims must be limited to “evaluating ‘abnormal’ movements to identify if those movements are potentially harmful or injurious to the body.”³⁷ In support, Defendant argues that “[a]cceptable’ under iLife’s proposed construction could be any threshold . . . that distinguishes between any two movements in any environment.”³⁸ While this is an overstatement because of the presence of other claim limitations, the claims *are* broadly drafted to cover systems for evaluation of body movement relative to an environment.³⁹ The specification explains that body movement must be evaluated “relative [to] the environment of interest,” with the determination of “within tolerance [made] in the context of that environment.”⁴⁰ In other words, the inventors intended and claimed environment-specific flexibility in determining whether movements or activities are within environmental tolerance,

³³ ‘481 Patent at 1:51-59 (App. 14).

³⁴ ‘481 Patent at 11:24-25 (App. 19).

³⁵ ‘461 Patent at 4:16-20 (App. 106).

³⁶ Defendant also argues that “[t]he concepts of ‘acceptable’ and ‘unacceptable’ are distinct . . . from ‘tolerable’ and ‘intolerable’ events.” Doc. #49 at 16. As discussed above, it is the claimed phrase “within environmental tolerance” that is congruous with Plaintiff’s proposed construction of “acceptable . . . given the application and environment of interest.”

³⁷ Doc. #49 at 16.

³⁸ Doc. #49 at 16.

³⁹ *See, e.g.*, ‘481 Patent, Claim 1 (App. 19).

⁴⁰ ‘481 Patent at 2:60-64 (App. 17).

and should not be limited based on the written description. Thus, accelerative phenomena are processed “as a function of at least one accelerative event characteristic to thereby determine whether said evaluated body movement is [acceptable . . . given the environment and application for which body movement is being evaluated].”⁴¹

3. A determination of “within environmental tolerance” must be based on deviation of body movement from a specified value.

The claims use the term “tolerance” in accordance with its plain and ordinary meaning, referring to deviation from a specified value.⁴² The specification provides many examples of processing sensed accelerative events as a function of accelerative event characteristics and comparing them against values or thresholds to determine if the evaluated body movement is acceptable.⁴³ The system “can, for instance, be used to monitor and measure body motions (accelerations [at variable levels, e.g., 0.1 g, 0.2 g . . .], angle changes [at variable levels, e.g., 15 degrees, 20 degrees . . .], or both).”⁴⁴ In an alternate embodiment, the controller “detects a rate at which the value of the static acceleration vector is increasing from a value that is less than one ‘g,’ [but] greater than a preselected threshold rate” to determine whether the event was

⁴¹ See, e.g., ‘481 Patent, Claim 1 (App. 19).

⁴² See, e.g., McGraw-Hill Dictionary of Scientific and Technical Terms, p. 2159 (“[a] permissible deviation from a specified value”) (App. 171); Modern Dictionary of Electronics p. 787 (“[a] permissible deviation from a specified value;” “[a] specified allowance for error from a desired or measured quantity.”) (App. 178).

⁴³ ‘481 Patent at 7:62-8:2 (App. 17) (“[P]rocessor 47 repeatedly compares successive input values with immediately preceding input values and, if within tolerance, are added thereto and stored in an accumulator. This is repeated until Z samples have been accumulated and added over some defined period of time (e.g., one second) or until a received input is out of tolerance, in which case the sampling cycle is reinitiated.”); 8:22-25 (App. 17) (“Processor 47 determines a fall by testing a post-impact stream of samples against a tolerance Step 425; for instance, a selected value of the ac voltage components, for 25 example a value less than about 2 G.”); 2:15-19 (App. 14) (“The processor . . . processes the sensed accelerative phenomena as a function of at least one accelerative event characteristic to determine whether the evaluated body movement is within environmental tolerance.”); 2:64-66 (App. 14) (“tolerance indicia is compared with at least one threshold, likely associated with the accelerative event characteristic.”).

⁴⁴ ‘461 Patent at 21:60-63 (App. 115).

acceptable, or within tolerance.⁴⁵ While it is true that a preferred embodiment detects if particular movements are “tolerable” to the body, the claims require a determination of whether evaluated body movement is “within an environmental tolerance,” which requires processing sensor outputs against specified values. Indeed, Defendant offers no explanation for how to determine if evaluated body movement is within tolerance without comparing the observed acceleration values to values or thresholds.

B. “dynamic and static accelerative phenomena of the body” / “dynamic acceleration” / “static acceleration”

Plaintiff’s proposed construction	Defendant’s proposed construction
occurrences of change in velocity (or acceleration) indicating vibration or movement of the body <u>and</u> position of the body relative to earth using gravity as a gauge of position	Accelerative phenomena experienced as a result of motion and of gravity “body” retains its agreed construction

The parties agree that “static acceleration” is acceleration due to gravity and “dynamic acceleration” is acceleration due to vibration or movement. However, there are fundamental differences between the parties’ proposed constructions of the phrase “dynamic and static accelerative phenomena of the body.”

First, the patents disclose a distinction between “**static acceleration**, or gravity,” and “**static acceleration of the body** (i.e., the position of a body relative to earth within broad limits).”⁴⁶ Defendant misapprehends this distinction, stating that “the Asserted Patents confusingly refer to ‘static acceleration’ as either (1) acceleration due to gravity or (2) a gauge of

⁴⁵ ‘481 Patent at 1:12-22 (App. 14).

⁴⁶ ‘481 Patent at 1:41-47 (App. 14).

position.”⁴⁷ Defendant argues that “acceleration due to gravity is the technically correct definition,” and “it does not follow that static acceleration should be defined as ‘position.’”⁴⁸

The patents are quite clear that “static acceleration **of the body**” means the “position of a body relative to earth.”⁴⁹ Furthermore, using static acceleration to determine the body’s position is fundamental to the patents. Plaintiff’s proposed construction embraces this teaching by interpreting “static accelerative phenomena of the body” as “occurrences of change in velocity (or acceleration) indicating . . . position of the body relative to earth using gravity as a gauge of position.” Defendant seeks to construe “static accelerative phenomena of the body” in terms of just gravity, while ignoring position, which fails to “appreciate[] that static acceleration . . . is a gauge of position,”⁵⁰ and that “static acceleration of the body” means “the position of a body relative to earth within broad limits.”⁵¹ This leads to the next critique.

Second, the claims require sensing accelerative phenomena “of the body” to determine if the body is within environmental tolerance. This point is captured in Plaintiff’s proposed construction: “occurrences of change in velocity (or acceleration) indicating **vibration and movement of the body and position of the body** relative to earth using gravity as a gauge of position.” By contrast, Defendant’s proposed construction—“accelerative phenomena experienced as a result of movement and of gravity”—essentially removes the limitation “of the body” from the phrase. This cannot be fixed by adding the phrase “of the body” to the end of Defendant’s proposed construction because “movement and gravity of the body” means something else entirely. The claims are concerned with the body’s position relative to gravity of

⁴⁷ Doc. #49 at 20.

⁴⁸ Doc. #49 at 20.

⁴⁹ ‘481 Patent at 1:41-47 (App. 14).

⁵⁰ ‘481 Patent at 1:41-47 (App. 14).

⁵¹ ‘481 Patent at 1:41-47 (App. 14).

the earth. This dovetails with the point above about “static acceleration of the body” referring to position of the body relative to earth.

Third, Defendant takes issue with the patents’ use of the phrase “position of the body,” arguing that the more precise phrase is “orientation of the body” because position might be misconstrued as location instead of orientation. Defendant offers no expert testimony or other compelling evidence showing that such a clarification is necessary or proper. Moreover, the specification, which is the best source for interpreting the claims,⁵² speaks in terms of the “position” of the body (*e.g.*, “the position of a body relative to earth within broad limits” and “gravity . . . is a gauge of position”).⁵³ Thus, the Court should not substitute the term “orientation” for the inventors’ preferred term “position.”

Fourth, the patents state that “dynamic acceleration” means “vibration, body movement, and the like.” Plaintiff’s construction embraces this express definition,⁵⁴ interpreting “dynamic . . . accelerative phenomena of the body” to mean “occurrences of change in velocity (or acceleration) indicating vibration or movement of the body.” Defendant rejects the inventors’ definition in lieu of the term “motion,” which is improper.⁵⁵

Fifth, Defendant argues that “‘acceleration *indicating* vibration or movement’ is too broad.” But Defendant uses similar transitional language: “accelerative phenomena *experienced as a result of* motion and of gravity.” It does not matter which of these phrases is used—it means the same thing either way: “occurrences of change in velocity (or acceleration) [*indicating* /

⁵² *Phillips*, 415 F.3d at 1315.

⁵³ ‘481 Patent at 1:41-47 (App. 14).

⁵⁴ *See Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1334 (Fed. Cir. 2009) (holding that “the specification’s use of ‘i.e.’ signals an intent to define the word to which it refers”).

⁵⁵ *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1249 (Fed. Cir. 1998) (“[A] patent applicant [may elect] to be a lexicographer by providing an explicit definition in the specification for a claim term. In such a case, the definition selected by the patent applicant controls.”).

experienced as a result of] vibration and movement of the body **and** position of the body relative to earth using gravity as a gauge of position.”

Finally, Defendant argues that Plaintiff’s proposed construction is incorrect because “the Asserted Patents teach that ‘dynamic acceleration’ also occurs when movement stops.”⁵⁶ This is a strained argument. The patents disclose that “many methods are known for sensing body movement, or non-movement (i.e., sensed dynamic accelerations, including cessation of movement), as well as, for sensing body movement over time, which is commonly used to determine comparative levels of activity of a monitored body.” It is a *lack* of dynamic acceleration that indicates the body is not moving. For example, “a first prerecorded set of SP coordinates could represent inactivity or the absence of motion (i.e., ‘no motion’),” which “could signify the existence of a problem condition.”⁵⁷ In any event, Plaintiff’s proposed construction still covers the “no motion” embodiments.

C. “communications device”

Plaintiff’s proposed construction	Defendant’s proposed construction
plain and ordinary meaning If construed: a device capable of communication, which may include, without limitation, cellular telephones, personal digital assistants, hand held computers, laptops, computers, wireless Internet access devices, and other similar types of communications equipment.	Device comprising cellular telephones, personal digital assistants, hand held computers, laptops, computers, wireless Internet access devices, and other similar types of communications equipment

The term “communication device” will likely be “readily understandable to a lay jury” and therefore does not require construction.⁵⁸ If the term is to be construed, however, the

⁵⁶ Doc. #49 at 21 (citing ‘481 Patent at 1:16-19).

⁵⁷ ‘461 Patent at 18:26-35 (App. 113).

⁵⁸ *Innovative Sonic Ltd. v. Research in Motion Ltd.*, No. 3:11-CV-0706-K, 2012 WL 4928897, at *10 (N.D. Tex. Oct. 17, 2012).

inventors' definition controls.⁵⁹ The '796 Patent states that the term "communication device" must be "defined broadly to include, without limitation, cellular telephones, personal digital assistants, hand held computers, laptops, computers, wireless Internet access devices, and other similar types of communications equipment."⁶⁰ Defendant's proposed construction obscures the *purpose* of the device and uses the esoteric patent term of art "comprising," instead of the more readily understandable phrase "defined broadly to include, without limitation." If "communication device" is to be construed, Plaintiff proposes "a device capable of communication, which may include, without limitation, cellular telephones, personal digital assistants, hand held computers, laptops, computers, wireless Internet access devices, and other similar types of communications equipment."

D. "acceleration measuring device"

Plaintiff's proposed construction	Defendant's proposed construction
plain and ordinary meaning If construed: A device capable of measuring acceleration	A plural axis accelerometer mounted on a single monolithic integrated circuit or chip

Although the claim language "acceleration measuring device" provides a good indication of what the device is and what it does, Defendant contends a plain and ordinary meaning construction "is insufficient because 'acceleration measuring device,' . . . is vague and ambiguous without further construction."⁶¹ In reality, Defendant is trying to narrow the claims by importing a limitation from the written description into the claims. In the exemplary embodiment, the sensor is "illustratively shown as a plural-axis (dual shown) acceleration

⁵⁹ *Renishaw*, 158 F.3d at 1249 ("[T]he definition selected by the patent applicant controls.").

⁶⁰ '796 Patent at 2:46-47 (App. 57).

⁶¹ Doc. #49 at 22.

measuring device suitably mounted on a single monolithic integrated circuit.”⁶² Defendant’s proposed construction attempts to write this limitation into the broad claim language “acceleration measuring device,” which is improper.⁶³ The patents make clear that this exemplary embodiment is illustrative,⁶⁴ and that “any sensor that is capable of sensing accelerative phenomena relative to a body may be used”⁶⁵ Because the patents do not clearly and unambiguously limit the “acceleration measuring device” to the preferred embodiment, the term should be given the full scope of its plain and ordinary meaning.

Additionally, dependent claim 4 of the ‘939 Patent recites that the “acceleration measuring devices” of claim 1 are “plural axis accelerometers.”⁶⁶ Construing “acceleration measuring device” as “a plural axis accelerometer” would render dependent claim 4 of the ‘939 Patent superfluous, which violates the canon of claim differentiation.⁶⁷ The claims specify when the acceleration measuring device is required to be plural axis and this plain and ordinary meaning should control. For all these reasons, the Court should reject Defendant’s proposed construction and decline to construe this term. Alternatively, the Court may construe

⁶² ‘461 Patent at 6:45-51 (App. 107).

⁶³ *ACTV, Inc. v. Walt Disney, Co.*, 346 F.3d 1082, 1091 (Fed. Cir. 2003) (“Where the written description does not expressly limit the claim term and otherwise supports a broader interpretation, ‘we are constrained to follow the language of the claims,’ and give the claim term its full breadth of ordinary meaning as understood by persons skilled in the art.”) (internal citations omitted); *see also Phillips*, 415 F.3d at 1323 (“although the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments.”)

⁶⁴ *See* ‘481 Patent at 4:66-5:2 (App. 14-15) (“Sensor 25 is *illustratively shown* as a plural-axis (dual shown) acceleration measuring device suitably mounted on a single monolithic integrated circuit . . .”).

⁶⁵ ‘481 Patent at 5:55-59 (App. 15).

⁶⁶ ‘939 Patent, Claims 1 and 4 (App. 44).

⁶⁷ *See Stumbo*, 508 F.3d at 1362 (a claim construction that renders other claim limitations superfluous is “a methodology of claim construction that [the Federal Circuit] has denounced.”)

“acceleration measuring device” as “a device capable of measuring acceleration,” which is consistent with the plain and ordinary meaning of the term.⁶⁸

E. “subtracting a value of gravitational acceleration”

Plaintiff’s proposed construction	Defendant’s proposed construction
plain and ordinary meaning	Subtracting a value of one ‘g’
If construed: Subtracting a value for gravity	

Defendant does not explain any significant difference between (1) the plain meaning—“subtracting a value of gravitational acceleration,” (2) Plaintiff’s alternative construction—“subtracting a value for gravity,” and (3) Defendant’s construction—“subtracting a value of one ‘g.’” Defendant’s interpretation is based on the description of an example embodiment which subtracts “the value of one ‘g’ from the total acceleration” to determine acceleration due to forces other than gravity.⁶⁹ However, there is no compelling reason to import this example into the claims.⁷⁰ Moreover, Defendant does not explain how substituting “one ‘g’” for “gravitational acceleration” is helpful in clarifying the claim language. Defendant argues that Plaintiff seeks to broaden the claim “by allowing any value for gravity.”⁷¹ But the parties agree that the value of one “g” is approximately 9.8 meters per second squared (even though the precise value varies

⁶⁸ See e.g. ‘461 Patent at 14:54-61 (App. 111) (“accelerometer 910 is aligned parallel to the x-axis of a three dimensional Cartesian coordinated system and is capable of measuring accelerations in the x direction”); ‘481 Patent at 5:55-59 (App. 16) (“any sensor that is capable of sensing accelerative phenomena relative to a body may be used”); Modern Dictionary of Electronics p. 4 (App. 174) (defining an accelerometer as “[a] transducer that measures acceleration and/or gravitational forces capable of imparting acceleration”).

⁶⁹ Doc. #49 at 23 (citing ‘461 Patent at 16:62-17:6).

⁷⁰ *ACTV*, 346 F.3d at 1091 (“Where the written description does not expressly limit the claim term and otherwise supports a broader interpretation, we are constrained to follow the language of the claims, and give the claim term its full breadth of ordinary meaning as understood by persons skilled in the art.”).

⁷¹ Doc. #49 at 24.

slightly depending on locational factors like latitude and altitude).⁷² Moreover, Defendant is the party seeking to construe the phrase. Plaintiff urges a plain meaning construction. Thus, Defendant has the burden to show that its proposed construction is necessary and correct. Because Defendant has not met this burden, the Court should decline to construe the phrase “subtracting a value of gravitational acceleration.”

F. “evaluate [or evaluates or evaluating] movement of a body relative [to] an environment” / “evaluate [or evaluates] body activity relative to an environment”

Plaintiff’s proposed construction	Defendant’s proposed construction
plain and ordinary meaning See the agreed term “environment”	Evaluate [or evaluates or evaluating] movement of a body relative to the conditions and the influences of the physical system in which the body is located

Defendant’s proposed construction for these phrases merely restates the phrases and incorporates an agreed construction of “environment.” Such an interpretation is redundant and unnecessary.⁷³ Moreover, Defendant’s proposed construction, without explanation, fails to account for the difference in scope or meaning between the phrases “movement of a body” and “body activity,” which are used in various different claims.⁷⁴ Although the terms are similar, they are presumed to have different meanings.⁷⁵ The Court should not construe these phrases in a

⁷² Doc. #49 at 23, n.9 (“One ‘g’ is *approximately* . . . 9.8 m/sec².”) (emphasis added); Doc. #49 at 19 (“the force of gravity . . . is always present (and *more or less* constant) on Earth.”).

⁷³ See e.g., *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1553, 1568 (Fed. Cir. 1997) (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. *It is not an obligatory exercise in redundancy.*”) (emphasis added).

⁷⁴ Compare, e.g., ‘481 Patent, Claim 1 (App. 19) (“a system that *evaluates movement of a body* relative to an environment”) with ‘461 Patent, Claim 1 (App. 115) (“[a] system that *evaluates body activity* relative to an environment) (emphasis added).

⁷⁵ See e.g., *Comaper Corp. v. Antec, Inc.*, 596 F.3d 1343, 1348 (Fed. Cir. 2010) (“There is an inference [] that two different terms used in a patent have different meanings.”).

way that renders differences in the claims meaningless.⁷⁶ For these reasons, the Court should decline to construe these phrases.

G. “substantially continually measuring”

Plaintiff’s proposed construction	Defendant’s proposed construction
plain and ordinary meaning	Indefinite

On this term, Defendant argues that the patents “give no guidance as to how to distinguish between ‘substantially continuous’ and ‘continuous.’”⁷⁷ But the patents explain the concept in the context of an assistance monitoring example:

[T]he sensor may **repeatedly sense** dynamic and static acceleration of the body in the plural axes and generate output signals indicative of the measurements. The processor **continuously processes the output signals** to distinguish between selected accelerative and non-selected accelerative events (described in detail hereafter) The tolerance indicia is communicated to the monitoring controller for record keeping/statistical purposes, as well as to provide **“live” monitoring** of the individual subscriber.⁷⁸

For this embodiment, “[s]ampling and/or sampling cycle rates may be varied, but, while preferably not continuous due to power consumption concerns, should be **substantially continual**.”⁷⁹ Although there is no precise value given for what constitutes “substantially continuously measuring,” the concept is readily understandable and the law does not require “absolute precision.”⁸⁰ The definiteness requirement is satisfied by the example given.⁸¹ Thus, the phrase “substantially continuously measuring” is not indefinite.

⁷⁶ *Raytheon Co. v. Indigo Sys. Corp.*, 682 F. Supp. 2d 717, 727 (E.D. Tex. 2010) (rejecting construction of “substantially” because it “potentially alters the scope of the term ... and ... does not add clarity to the claim language as drafted,” and declining to construe the term).

⁷⁷ Doc. #49 at 26.

⁷⁸ ‘481 Patent at 3:6-17 (App. 15).

⁷⁹ ‘481 Patent at 7:52-8:30 (App. 17).

⁸⁰ *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014).

⁸¹ *See Enzo Biochem, Inc. v. Applera Corp.*, 599 F.3d 1325, 1335 (Fed. Cir. 2010).

H. “an unsuccessful attempt to change position” / “a motion of a body moving with a gait associated with a disability” / “a swaying motion” / “a near fall”

Plaintiff’s proposed construction	Defendant’s proposed construction
plain and ordinary meaning	Indefinite

These terms appear in dependent claims for recognition of different types of motion. For example, claim 9 of the ‘939 Patent recites that the “controller is capable of comparing a set of spherical polar coordinate components [against] prerecorded sets of spherical polar coordinate components in which each set . . . represents a type of motion,” and “wherein one of said plurality of prerecorded sets of spherical polar coordinate components represents one of: no motion, a successful attempt to change position, an unsuccessful attempt to change position, a motion of body moving with a gait, a motion of a body moving with a gait associated with a disability, a swaying motion, a near fall, and a fall.”⁸²

Defendant argues that “each of these terms is vague and lacks adequate support in the specification,” and that identifying movements is “completely subjective and would require knowledge of the ‘body’s’ intent.”⁸³ But the specification describes how these different types of motion are used,⁸⁴ how the library of spherical polar coordinates is constructed,⁸⁵ and how algorithms are used for calculating spherical polar coordinates from the vector sum of acceleration measured in the x, y, and z directions.⁸⁶ The processor evaluates sensed body movement against the library of spherical polar coordinates, which are defined by the application, signaling an alarm when a match is found.⁸⁷ Reading the claims in light of the

⁸² ‘939 Patent, Claim 9 (App. 44).

⁸³ Doc. #49 at 28.

⁸⁴ ‘939 Patent at 17:21:32 (App. 43).

⁸⁵ ‘939 Patent at 16:8-20 (App. 42).

⁸⁶ ‘939 Patent at 13:57-64 (App. 41).

⁸⁷ ‘939 Patent at 17:35-18:4 (App. 43).

specification, a person of ordinary skill in the art would understand these terms with reasonable certainty. When claiming an invention, “absolute precision” is not required.⁸⁸ The definiteness requirement may be satisfied by giving examples, as the inventors did here.⁸⁹ Accordingly, these phrases are not indefinite.

III. CONCLUSION

Plaintiff requests that the Court construe the disputed claim terms broadly to cover systems and methods of evaluating movement of a body relative to an environment of interest, rejecting Defendant’s attempt to limit the claims based on particular examples or similar embodiments to the exclusion of others.

Respectfully submitted,

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⁸⁸ *Nautilus*, 134 S. Ct. at 2129.

⁸⁹ *See Enzo Biochem*, 599 F.3d at 1335.

CERTIFICATE OF SERVICE

I certify that this document was served to all counsel of record using the Court's CM/ECF system on December 15, 2014.

/s/ Michael C. Wilson

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